

Christopher R. Culpepper

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CAREER OBJECTIVE To continue my career in the field of Systems or Computer Engineering designing electronic hardware, working in the RF domain, or creating embedded software, preferably in aerospace.

EXPERIENCE *Systems Engineer* *July 2013 - Present*

General Dynamics Mission Systems, Pittsfield MA

- Performed software and systems testing on weapon control software
- Managed requirements and test cases
- Developed automated testing tracker that was used to present testing progress to management

Test Engineer Co-op

January 2016 - May 2016

Space Exploration Technologies, Hawthorne CA

- Created software to automate the creation of trouble reports
- Developed tests to test flight avionics hardware
- Troubleshoot issues with avionics test racks

Computer Engineering Lab Teaching Assistant

January 2015 - May 2017

Computer Engineering Department, RIT, Rochester, NY

- Responsible for grading reports and assisting with ARM assembly and digital IC design
- Mentored new Computer Engineers in order to increase retention and create better engineers.

PROJECTS *High Altitude Balloon Telemetry Tracker*

- Personally developed hardware and software design and implementation
- Developing radio board to have the ability to use FSK, AFSK, or audio-based protocols
- Utilized multiple PCBs in order to separate functionality and increase reusability
- Can communicate GPS and other sensor data to the Amateur Radio APRS network

Wideband Oxygen Sensor Controller

- Designed, built and programmed sensor controller that measured oxygen concentration
- Incorporated PID loops to keep a sensor at a constant temperature and oxygen concentration
- Could have been calibrated to measure accurate oxygen concentrations

Assembly Language Pong Game

- Created a 1.5D Pong game for a school project in HCS12 assembly
- Required HCS12 assembly, PWM, ADC and digital output

Radio-Internet Hotspot Transceiver (Multidisciplinary Senior Design)

- Worked as a team leader to complete self-appointed tasks
- Device acted as an audio bridge between RF and the Allstar radio network
- Completed entire design process from customer requirements to prototyping and handoff.

AWARDS & SKILLS

Eagle Scout

A+ Certified

Languages & Software:

C
Python
Microsoft Office
Linux
Kicad PCB Design Software

Visual Basic for Applications (VBA)
VHDL
ARM & HCS12 Assembly
DOORs Requirement Management
Networking Equipment Configuration

EDUCATION *Bachelor of Science, Computer Engineering GPA: 3.03*

Rochester Institute of Technology, Rochester NY, Graduated May 2017

Interface and Digital Electronics
Data Communication and Networks
Introduction to Software Engineering
Assembly Language Programming

Digital IC Design
Cyborg Theory
HW & SW Design for Crypto Applications
Introduction to Harmonica and the Blues

COMMUNITY SERVICE *Assistant Scoutmaster at Boy Scout Troop 88, North Adams, MA*

- Mentored Scouts to achieve rank and acquire valuable life skills
- Assisted with multiple community service projects

Radio Communication at Multiple Road Rallies

- Operated in a high-stress environment to prevent accidents and mistakes
- Responsible for maintaining communication for racing stages and to central management
- Relayed pertinent information to competitors, stage captain and race officials

PERSONAL INTERESTS AND HOBBIES

Amateur Radio Extra
Motorcycle and Automobile Repair
Camping and Hiking

Film Photography
Achieving Private Pilot Licence
Licked Thing That Was in Space